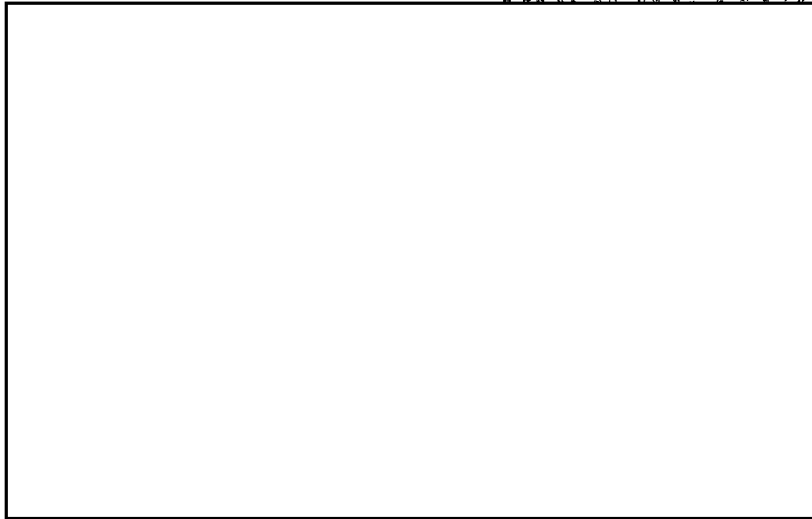


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Please Reference:



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Subject:

Contract



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Gentlemen:

We are pleased to provide the first in a series of Monthly Progress Reports covering the effort expended on subject contract.

SUMMARY OF WORK PERFORMED

A) Development of Program Schedule

A program schedule for the first phase of the research program was laid down. This schedule consisted of a series of theoretical appraisals, backed with laboratory experiments and tests.

The main area of experimentation was to determine, from both air and liquid flow pattern analysis, the most suitable channel-shapes for transporting film. This analysis was made by using 16mm film in conjunction with smoke chambers and special liquid chambers, wherein the liquid was loaded with impurities (fine plastic floating grains).

Flow pattern tests were conducted on more than 27 separate pieces of hardware, which resulted in half a dozen being selected for further tests in the 9-1/2" configuration.

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B) Establishment of Research Areas Which Are of Prime Importance

The knowledge gained from the flow pattern tests under (A) above, pointed out the target areas of prime importance on which research had to be applied for the 9-1/2" width.

With the preselection of six basic shapes of channel pattern made, it then became necessary to concentrate on obtaining an even flow of liquid and air across the film.

The approaches selected considered the following two methods:

1. Utilizing an external manifold system.
2. Utilizing internal distribution-vanes.

These two basic approaches resulted in several dozen lab tests with a considerable amount of hardware in the form of PVC manifolds and other plastic channel constructions.

As the tests and experimental activity continued, a first practical piece of hardware emerged, through which 9-1/2" film can be processed under the [redacted] principle. This hardware is shown in the enclosed two photographs.

C) Program for the Selection of Components and Material

Based on the results and knowledge derived from the experimentation under A and B above, preliminary selection of support hardware which will enable us to extend these tests into the 9-1/2" film size format has been made.

Concurrently, a separate effort was conducted to obtain 9-1/2" [redacted] process chamber hardware utilizing poly-urathene plastics. The ability to cast poly-urathene with varying shore hardness proved to play a vital role in obtaining a sample module which has the desired characteristics of even distribution of air and liquids. The results of this line of research and of the many sample pieces of hardware is that portrayed in the enclosed photographs.

D) Demonstrations

During the latter part of August, customer representatives met [redacted] and obtained a detail review of the progress of the program as described above and an insight into its future direction. During this review, [redacted] successfully demonstrated the film flotation capabilities of the portrayed hardware.

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E) Plans for the Forthcoming Period

The plans for the forthcoming period are:

1. To produce two or three additional film flow modules prior to selecting the final pattern.
2. To design a complete module with all of its auxiliary equipment, and to perform film transport tests.
3. To finalize the selection of auxiliary components in the design, such as pumps, plumbing items, air blowers and ducting configuration.
4. To perform the first film developing tests on the bread-board module, utilizing laboratory procedures for the fixing and washing portions of the development cycle.

F) The funds committed or expended to date are approximately

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If you should have any questions or desire further information, please do not hesitate to contact us.

Very truly yours,

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